

WHAT IS CLAIMED IS:

1. A method comprising the steps of:
- obtaining a software program;
- obtaining a downloadable unit configured to communicate with the software program;
- compiling the software program into a binary file;
- embedding the downloadable unit into the binary file; and
- loading the binary file with the embedded downloadable unit onto the network device.
2. The method of claim 1, wherein the step of obtaining a downloadable unit includes obtaining a Java™ class.
3. The method of claim 1, wherein the step of obtaining a downloadable unit includes obtaining an ActiveX™ control.
4. The method of claim 1, wherein the step of obtaining a downloadable unit includes obtaining more than one downloadable unit.
5. The method of claim 4, further comprising the step of bundling the downloadable units into a downloadable unit bundle.

1 6. The method of claim 5, further comprising the step of bundling the downloadable
2 units according to function.

1 7. The method of claim 5, further comprising the step of bundling the downloadable
2 units according to version.

1 8. The method of claim 5, further comprising the step of bundling sharable
2 downloadable units into a default bundle.

1 9. The method of claim 1, wherein the software program includes the operating
2 system of the network device.

1 10. The method of claim 9, wherein the network device includes a router.

1 11. The method of claim 5, further comprising the step of creating a table of contents
2 for the downloadable unit bundle.

1 12. The method of claim 5, wherein the step of embedding the downloadable unit
2 includes embedding the downloadable unit bundle into the binary file.

2009-03-27 14:22:27

sub 2
13. A system for managing a network device from a remote client, comprising:
a binary file of a software program stored in the network device;
a downloadable unit for managing of the network device embedded in the
software program binary file; and
a web server for communicating with the remote client and for transmitting the
embedded downloadable unit to the remote client.

17
14. The system of claim 13, wherein the network device includes a network router.

15. The system of claim 13, wherein the downloadable unit includes a Java™ class.

16. The system of claim 13, wherein the downloadable unit includes an ActiveX™
control.

17. The system of claim 13, wherein the downloadable unit includes more than one
downloadable unit.

18. The system of claim 17, wherein the downloadable units have been combined into
downloadable unit bundles.

sub 3
19. The method of claim 18, wherein the downloadable units have been combined
into downloadable unit bundles according to downloadable unit function.

1 20. The method of claim 18, wherein the downloadable units have been combined
2 into downloadable unit bundles according to version information

1 21. The method of claim 13, wherein the software program includes an operating
2 system.

1 22. The method of claim 21, wherein the network device includes a router.

1 23. The system of claim 13, wherein the web server communicates with the remote
2 client using a file transfer protocol.

1 24. The system of claim 13, wherein the web server communicates with the remote
2 client using an internet protocol.

1 25. The system of claim 13, wherein the software program includes an extractor for
2 extracting the embedded downloadable unit.

1 26. The system of claim 13, wherein the software program is currently executing on
2 the network device.

1 27. A system comprising:
2 means for obtaining a software program;
3 means for obtaining a downloadable unit configured to communicate with the
4 software program;
5 means for compiling the software program into a binary file;
6 means for embedding the downloadable unit into the binary file; and
7 means for loading the binary file with the embedded downloadable unit onto a
8 network device.

1 28. The system of claim 27, wherein the means for embedding a downloadable unit
2 includes means for embedding a Java™ class.

1 29. The system of claim 27, wherein the means for embedding a downloadable unit
2 includes means for embedding ActiveX™ controls.

1 30. The system of claim 27, wherein the means for embedding a downloadable unit
2 includes means for embedding more than one downloadable unit.

1 31. The system of claim 30, wherein the means for embedding more than one
2 downloadable unit includes means for bundling the downloadable units into
3 downloadable unit bundles.

1 32. The system of claim 27, wherein the means for embedding a downloadable unit
2 includes means for embedding a downloadable unit into an operating system of the
3 network device.

1 33. The system of claim 32, wherein the network device includes a router.

1 34. The system of claim 27, wherein the means for establishing a communications
2 link includes means for using a URL.

1 35. The system of claim 27, wherein the means for establishing a communications
2 link includes means for opening an internet protocol connection.

1 36. The system of claim 27, wherein the means for establishing a communications
2 link includes means for using an ftp server.

1 37. The system of claim 27, wherein the means for establishing a communications
2 link includes a web engine.

1 38. The system of claim 27, wherein the means for running the downloadable unit
2 includes a Java™ Virtual machine (JVM).

1 39. The system of claim 27, wherein the means for running the downloadable unit on
2 the remote machine includes an ActiveX capable browser.

663000 663000 663000

40. A method comprising the steps of:

- 2 receiving a request to manage a software program having a binary file from a
- 3 remote client;
- 4 locating a downloadable unit corresponding to the request embedded in the binary
- 5 file;
- 6 extracting the downloadable unit from the binary file; and
- 7 forwarding the downloadable unit to the remote client.

2024-09-23 14:23:23

Sub 15
41. A system comprising:

means for receiving a request to manage a software program having a binary file
from a remote client;

means for locating a downloadable unit corresponding to the request embedded in
the binary file;

means for extracting the downloadable unit from the binary file; and

means for forwarding the downloadable unit to the remote client.

42. A computer-storage medium storing program code for causing a computer to
perform the steps of:

receiving a request to manage a software program having a binary file from a
remote client;

locating a downloadable unit corresponding to the request embedded in the binary
file;

extracting the downloadable unit from the binary file; and

forwarding the downloadable unit to the remote client.

sub 16
C7

1 43. A system comprising:
2 a web server for receiving from a remote client a request to manage a software
3 program which has a binary file with an embedded downloadable unit for performing the
4 request;
5 an extractor coupled to the web server for extracting the downloadable unit from
6 the binary file; and
7 a communicator coupled to the extractor for forwarding the downloadable unit to
8 the remote client.

sub 18
C8

1 44. A method for modifying available remote device management services,
2 comprising the steps of:
3 obtaining a new downloadable unit for performing a new service;
4 retrieving a software program binary file having an embedded old downloadable
5 unit for performing an old service from a network device;
6 substituting the old downloadable unit for the new downloadable unit; and
7 loading the modified software program binary file back onto the network device.

sub 19
C9

1 45. The system of claim 13, wherein the software program includes a list of available
2 functions.

sub 20
C10

1 46. The system of claim 51, further comprising a downloadable unit for each of the
2 available functions.

add E7
add G17